

Serial No. 10/761,047

Docket No. 200313631-1

**REMARKS**

Claims 1-38 are currently pending in the subject application, and are presently under consideration. Claims 1-38 are rejected. Favorable reconsideration of the application is requested in view of the amendments and comments herein.

**I. Interview Summary**

The Applicant is grateful for the courtesies extended by the Examiner in the telephone interview of December 18, 2006. While no agreement was reached regarding the claims at issue, the discussions were helpful in shaping this response.

During the interview, Applicant's representative and the Examiner discussed the reliance in the Office Action on paragraphs [0026] and [0032] of U.S. Patent Publication No. 2002/0129211 to Arimilli, et al. ("Arimilli"). Applicant explained that paragraphs [0026] and [0032] of Arimilli fail to teach or suggest any read conflict responses, as recited in claim 1 and other pending claims. Instead, the cited sections of Arimilli disclose Combined Responses controlling ownership of a cache line in a shared state among a plurality of nodes. The Examiner stated that she would reconsider the claims after re-evaluating the teachings of Arimilli.

Applicant's representative and the Examiner also discussed how the Office Action December 18, 2006 ("Office Action") failed to address arguments presented in Applicant's response to the Office Action dated June 15, 2006 ("Prior Office Action"). For example, Applicant's representative explained that the Office Action dated December 18, 2006, relies on the identical rationale to reject many dependent claims (namely claims 2-8, 10-15, 17, 19-28, 32, 33, 37 and 38) that was relied on in the Prior Office Action. In the interview, the Examiner appeared to indicate that since Arimilli presented new grounds for rejection the claims, the previously presented arguments were not considered relevant. Applicant respectfully disagrees with this approach as the dependent claims add subject matter that further distinguishes over the art of record (including the primary reference Cypher) and therefore must be considered when determining patentability of such claims. The Examiner stated that she would consider the arguments presented in this response in support of the dependent claims.

Applicant's representative and the Examiner further discussed issues relating to the motivation to combine Cypher and Arimilli. It was discussed that the Office Action failed to mention any basis or motivation to combine the patents, but instead the Office Action

Serial No. 10/761,047

Docket No. 200313631-1

reached a conclusion that it would be obvious to implement the approach in Arimilli in the system of Cypher to determine what action would be taken. The Examiner suggested that the Applicant present arguments to support its position and that such arguments would be considered.

The following Remarks have been written based upon the discussions with the Examiner during the above-mentioned telephone interview.

## **II. Rejection of Claims 1-38 under 35 U.S.C. 103(a)**

Claims 1-38 have been rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 6,877,056 to Cypher ("Cypher") in view of Arimilli. Applicant traverses this rejection for the following reasons.

The Office Action admits that Cypher does not explicitly disclose the first node receiving a read conflict response to the broadcast request from the first node, the read conflict response indicating that a second node has a pending broadcast read request. However, the Office Action contends that Arimilli discloses a first node receiving a read conflict response to a broadcast read request from the first node. We respectfully disagree with this contention.

In contrast to the contention in the Office Action, Arimilli fails to teach or suggest a read conflict response to a broadcast read request from the first node, as recited in claim 1. Instead, Arimilli teaches providing a combined response from response logic that indicating what action, if any, each agent 10 is to take in response to the request. Arimilli Par. [0026]. More generally, Arimilli teaches resolving conflicts between requests to modify a cache line in a shared state, but fails to teach or suggest providing conflict responses indicating that a second node has a pending broadcast read requests. Arimilli Abstract. In the approach taught by Arimilli, a coherency decision point (CDP) is a device that grants or denies ownership of a target cache line that is held in a shared state for purposes of modification. Arimilli Par. [0030]. That is, the approach in Arimilli assumes that data already resides in each of the processors in a shared state and the CDP is configured to grant ownership. Arimilli also discloses that the CDP arbitrates between multiple conflicting requests to modify the same cache line. Additionally, Arimilli discloses the response logic produces combined response for modifying transaction, not for a broadcast read request. Arimilli Par. [0030]. Also, in Arimilli the combined response informs an agent that issued a transaction

Serial No. 10/761,047

Docket No. 200313631-1

whether or not it "won" the arbitration performed by the CDP and is the new owner of the target cache line. However, the a grant or denial of ownership by the CPD in response to a modifying transaction as disclosed in Arimilli is not a conflict response indicating that a second node has a pending broadcast read request, as recited in claim 1. Therefore, Arimilli fails to cure the admitted deficiencies of Cypher.

The Office Action also contends that Cypher's teaching at Col. 14, lines 35-50, is relevant to the anticipation of claim 1. However, Cypher teaches an embodiment in which constraints are placed upon where a given operation can be placed in the global order, and that these constraints can be used to support various well-known memory models (see Cypher at Col. 14, lines 35-50), but fails to teach or suggest to the structural and functional interrelationships recited in claim 1. Moreover, the ownership responsibilities (Cypher at Col. 14, lines 43-50) do not contain any teaching of the responses provided in the system of claim 1.

Additionally, contrary to the contention of the Office Action, Cypher fails to teach or even suggest that a third node provides the requested data in response to the first node in response to the broadcast request from the first node. Significantly, the cited section in Cypher at Col. 20, lines 25-40, relates to one particular approach on how a transaction can be carried out in a point-to-point mode, which does not correspond to what is recited in claim 1. See also Cypher at Col. 20, lines 58-60 discussing what is shown and described with respect to FIGS. 13A-13G.

One of ordinary skill in the art would not be motivated to combine Cypher in view of Arimilli to create the system of claim 1. As mentioned in Section I of this response, the Office Action fails to identify a basis or motivation to implement the approach disclosed in paragraphs [0026] and [0032] of Arimilli into the system of Cypher. See Office Action at Page 3, lines 4-12. Significantly, Cypher discloses a system that supports both point to point (PTP) and broadcast transmission (BC) modes, with clients transmitting coherence requests via an address network may be unaware of whether the coherence request will be conveyed via PTP or BC mode. See Cypher at Col. 6, lines 40-50. In order to implement the dual mode approach, the system of Cypher employs a Mode Unit 250 and Mode Table 200 in Switch Unit 200 in order to determine what mode to utilize. Cypher Fig. 2 and Col. 7, line 7, to Col. 8, line 65. However, Arimilli contains a divergent teaching of a system that employs a system providing broadcast transactions wherein each node includes a snooper 28 for detecting broadcast messages on the system bus 12. See Arimilli Fig 1 and Par. [0026].

Serial No. 10/761,047

Docket No. 200313631-1

Additionally, Arimilli requires specific response logic 30 for producing the combined responses. Adding the combined responses, including required snoopers and response logic of Arimilli to Cypher would further require adding and modifying Cypher to include undesirable and unnecessary complexity to the system of Cypher which already has systems to determine what action should be taken. Such modifications would further likely obviate the dual mode operation taught in Cypher, such that it would render the modified Cypher inoperable for its intended purpose.

For at least the reasons stated above, claim 1 is not obvious to one of ordinary skill in the art in light of Cypher in view of Arimilli. Accordingly, Applicant respectfully requests reconsideration and allowance of claim 1 as well as dependent claims 2-15.

The Office Action maintains its rejection of claim 2, relying upon a seemingly unrelated description in Cypher of that describes to selection of transmission protocol either PTP or BC mode transmission. See Cypher Col. 8, lines 45-57. In contrast to the recitation in claim 2, the cited section of Cypher fails to teach or suggest the broadcast request provided by a first node (as recited in claim 1) is a source broadcast read request as further recited in claim 2. Therefore, Cypher in view of Arimilli fails to teach or suggest claim 2.

Accordingly, Applicant respectfully requests reconsideration and allowance of claim 2.

Applicant respectfully disagrees with the contention that Cypher in view of Arimilli teaches or suggests the system of claim 3. The Office Action cites a teaching in Cypher (at Col. 15, lines 1-18), in which the coherence protocol employed by the computer system (140) has the property that reception of address packets is not blocked based on the reception of particular data packets and that access rights and ownership status can transition separately in the protocol making various combinations of coherence states possible. See Cypher Col. 14, lines 50-52 and Col. 15, lines 1-18. This discussion of coherency protocol properties in Cypher and Arimilli both fail to teach or suggest a read broadcast request is pending from a second node and that a first node provides a read conflict response, as recited in claim 3. Since Cypher in view of Arimilli fails to teach or suggest claim 3, Applicant respectfully requests reconsideration and allowance of claim 3.

Claim 4 depends from claim 3 and is allowable for at least the same reasons as claim 3. Additionally, claim 4 recites that the third node provides the requested data to the second node (which is in addition to providing the requested data to the first node - recited in claim 1). The Office Action alleges that part of a description in Cypher relating to Point to Point (PTP) mode transactions, which are not broadcast requests, supports the anticipation rejection

Serial No. 10/761,047

Docket No. 200313631-1

of claim 4. See Cypher Col. 20 line 56 and Col. 22, lines 38-49. In addition to this section of Cypher failing to teach the broadcast read request from the second node (because Cypher is describing PTP mode transactions), Cypher also fails to teach the second node filling the data provided by the third node in a cache associated with the second node, as also recited in claim 4. Instead Cypher teaches that WAIT and INV packets are sent via PTP mode transactions on different virtual networks to a single device D1 (only in PTP mode, not broadcast), and that the DATA packet may be received before either of the address packets in some embodiments. See Cypher Fig. 13B and Col. 22, lines 38-49. In sharp contrast to a third node providing data to the second node in response to the broadcast read request from the second node, the cited section of Cypher in describing Fig. 13B teaches a first node (D1) via Point to Point read to own request to a second node (M) and the second node provides the data to the first node, and invalidates other copies of the data via Point to Point request. See Cypher at Fig. 13B and Col. 21, line 61, to Col. 22, line 54. For these reasons, Applicant respectfully requests withdrawal of the rejection of claim 4.

Claim 5 recites that the request for data broadcast by the first node is a source broadcast write request. To support the rejection of claim 5, the Office Action appears to rely on a teaching in Cypher in which the Response Network may also implement logical point to point medium and may only be used for PTP mode transactions. See Cypher Col. 17, lines 15-30. That is, the cited section of Cypher relates again to a particular implementation using the PTP mode - not the broadcast mode. Accordingly, it is unclear how the Office Action can contend that these Point to Point mode transactions somehow teach a source broadcast write request. Reconsideration and allowance of claim 5 are respectfully requested.

Regarding claim 6, the Office Action admits Cypher does not explicitly disclose the system of claim 5. The Office Action then contends that Arimilli teaches or suggests the additional elements of claim 6 not disclosed in Cypher. We respectfully disagree with this contention. In addition to the reasons given in support of claim 1, Arimilli also fails to teach or suggest a conflict response that indicates that the write request broadcast by the first node (in claim 5) conflicts with a broadcast read request from the second node. Instead, Arimilli discloses Dclaim and Read with Intent to Modify (RWITM) transactions, neither of which are write requests. See Arimilli Par. [0006]-[0007]. Additionally, the Office Action rejects claim 6 by stating the second node disclosed in Arimilli has a pending read request, however claim 6 recites a pending write request. Furthermore, none of the combined responses

Serial No. 10/761,047

Docket No. 200313631-1

disclosed in Arimilli relate to the scenario recited in claim 6. Applicant respectfully requests reconsideration of claims 6 as well as dependent claims 7-10.

In regard to claim 7, which depends from claim 6, Cypher in view of Arimilli fails to teach that the first second node in response to the second conflict response provided by the first node reissues the pending broadcast read request of the second node. Instead, the Office Action relies on a teaching in Cypher that describes point to point transactions between a first node D1 and memory node M which blocks subsequent PTP RTO transactions, but fails to teach that D1 reissues the pending broadcast read request of the second node or that the first node D1, provides a second conflict response. See Cypher at Col. 21, lines 28-43. At least for these reasons, Cypher in view of Arimilli fails to teach claim 7. Accordingly, Applicant respectfully requests reconsideration and allowance of claim 7.

Regarding claim 8, Cypher in view of Arimilli fails to teach or suggest that a second node reissues a pending broadcast read request using a forward progress protocol in response to the second conflict response provided by the first node, wherein the first cache coherency protocol (that is used to broadcast the request provided by the first node) is a source broadcast cache coherency protocol. Even though Cypher teaches that some requests can be sent in both BC and PTP modes (See, e.g., Cypher at Col. 23, lines 8-12), nothing in Cypher teaches or suggests that a node would reissue a broadcast read request using a forward progress cache coherency protocol, as recited in claim 8. Instead, Cypher appears to teach that each transaction is carried out using one of the protocols, as determined in by the CDP. This becomes more evident when considered in view of claim 1 (from which claim 8 indirectly depends), which recites that the second node has a pending broadcast read request for the data. Moreover, the cited section in Cypher (Col. 9, lines 11-19) describes that a small number of processors may be set according to BC mode transmissions and a large number service according to PTP mode transmissions based on how a mode table is programmed. For these reasons, Applicant requests reconsideration and allowance of claim 8.

Claim 9 depends from claim 6 and should be patentable over Cypher in view of Arimilli at least for the reasons provided in support of claim 6. Moreover, the Office Action admits that Cypher does not explicitly disclose the second conflict response provided by the first node preventing the second node from filling the data provided by the third node in a cache associated with the second node. However, the Office Action contends that claim 6 is obvious over Cypher in view of Arimilli. We respectfully disagree with this contention. Specifically, Arimilli teaches a system that arbitrates between conflicting requests to modify

Serial No. 10/761,047

Docket No. 200313631-1

data cached in a shared state. See Arimilli Abstract. In Arimilli, the data is already cached in a shared state at the nodes, therefore Arimilli would not motivate one of ordinary skill in the art to create a system with a conflict response preventing a second node from filling the data provided by the third node in a cache associated with the second node, because the second node would already have the data in a shared state. See Arimilli Par. [0030]-[0032].

Additionally, the Office Action contends that Cypher teaches claim 9 by citing a section in Cypher that teaches read to share data packets do not cause a change in the access rights at D1 and D2, or does not change ownership for the coherency unit. See Cypher Col. 19, lines 50-53. Furthermore, the Office Action states that a Write Stream (WS) transaction in which an entire coherency unit is written and the device initiating the WS may receive an ACK message from the processing subsystem that most recently owned the coherency unit. See Cypher Col. 19, lines 54-59. However, in addition to Arimilli's failure to teach conflict responses, Cypher both here and elsewhere fails to teach a second conflict response provided by the first node prevents the second node from filling the data provided by the third node in a cache associated with the second node, as recited in claim 9. For example in Cypher, the Write Stream (WS) transaction is created by a first node, but Cypher fails to teach or suggest any conflict response would be broadcast by the first node to blocks a second node from filling the data provided by the third node in its cache. Instead, Cypher teaches that a WS transaction is broadcast from the first node (D2) and Data is written from the first node to the second node M, but that this appears to occur without any conflict response being provided by the first node D2 nor is a second node prevented from filling a request with data received from a third node.

For these reasons, Cypher in view of Arimilli fails to teach or suggest the system of claim 9. Accordingly, Applicant respectfully requests reconsideration and acceptance of claim 9.

In regard to claim 10, the Office Action cites the same section of Cypher that was relied upon to reject claim 6. However, similar to as discussed with respect to claim 6, Cypher teaches a first node D1 provides a PTP RTO request to a second node M, the second node subsequently providing a PTP request to third node, such third node providing the data to the first node. See Cypher at Col. 23 lines 23-45. However, claim 10 recites that a third node provides data in response to the pending broadcast read request of the second node, and that the second node fill a cache associated with the second node with the shared data and associating an invalid state with the shared data filled in the cache associated with the second

**Serial No. 10/761,047****Docket No. 200313631-1**

node. Cypher fails to teach or suggest that the system described therein would operate in the manner recited in claim 10, namely, with the interrelationship between requests and responses. For these reasons as well as those discussed above with respect to claims 5 and 6, Cypher in view of Arimilli fails to teach or suggest claim 10. Accordingly, Applicant respectfully requests withdrawal of the rejection of claim 10.

For reasons similar to those given in support of claim 1, Cypher in view of Arimilli fails to teach or suggest what is recited in claims 13 and 14. Additionally, the cited sections of Cypher at Col. 25, lines 1-38, relate again to a particular implementation of a PTP coherence transaction (See FIG. 13F and 13G) and do not describe how the first and second nodes may be arranged, as recited in claim 13. Additionally, the cited section in Cypher at Col. 12, lines 34-50, to reject claim 14 relates to a description of processing of particular coherence requests and not to cache controllers, as recited in claim 14. Accordingly, Applicant requests reconsideration and allowance of claims 13 and 14.

Regarding claim 15, Cypher in view of Arimilli fails to teach or suggest a hybrid cache coherency protocol as recited in claim 15. Instead, Cypher teaches that a node may provide transactions either by a PTP or a BC mode transaction. See Cypher at Col. 18, lines 33-38. Cypher also teaches that the nodes of the system may be unaware of whether the coherence request will be conveyed via PTP or BC mode. See Cypher Col. 6, lines 40-45. However, Cypher fails to teach or suggest that the first, second and third processors employs an associated second protocol to reissue a request for the data in response to the request failing in the source broadcast protocol, the second protocol employing a forward progress technique, as recited in claim 15. At least for these reasons, Applicant respectfully requests reconsideration and allowance of claim 15.

In regard to Claim 16, Arimilli fails to teach or suggest write requests for similar to the reasons to those discussed in support of claims 1 and 6. Additionally, similar to the reasons given in support of claim 9, the data in Arimilli is already in a shared state at the nodes of Arimilli, such that data responses would not be provided in response to the source broadcast request for data, as recited in claim 16. Arimilli Par [0030]. Accordingly, one of ordinary skill in the art would not be motivated to combine the teachings of Cypher with the teachings of Arimilli to create the system of claim 16.

Additionally, Cypher in view of Arimilli fails to teach or suggest that a second processor node that is operative to provide a first conflict response to the first source broadcast request when the second source broadcast request is a read request and to provide a



Serial No. 10/761,047

Docket No. 200313631-1

second conflict response to the first source broadcast request when the second source broadcast request is a write request. In contrast to the contention in the Office Action, the cited section of Cypher teaches how a home node reacts to PTP read-to-own coherence requests, rather than the second processor node being operative to provide conflict responses to the first source broadcast request depending on the type of request. See Cypher at Col. 21, lines 26-47. Since Cypher in view of Arimilli do not teach or suggest that a second node is operative to provide the first and second conflict responses, as recited in claim 16, Cypher consequently also fails to teach the action of the first processor in response to receiving a read conflict response from the second processor, in the manner recited in claim 16. Instead, Cypher teaches a first processor node (M) operative in response to a read response from a second node (D1), to generate a wait response and an invalidate response, and a data response (not a read conflict response) to implement a cache in the second node (D1). See Cypher, Fig. 13B and Col. 22, lines 25-46. Additionally, the Office Action appears to erroneously rely upon sections of Cypher that refer to Coherence Transactions in Point-to-Point (PTP) mode in contrast to claim 16, because claim 16 recites some of the transactions are source broadcast transactions. See Cypher at Col 20, lines 57-67.

For these reasons, Cypher in view of Arimilli fails to teach or suggest claim 16. Accordingly, Applicant respectfully requests reconsideration and allowance of claim 16 and claims 17-23 that depend from claim 16.

Regarding claim 17, Cypher in view of Arimilli fails to teach that the first processor node issues a request for "the data" in response to a write conflict response from the second processor node. Instead, the cited section of Cypher teaches that a node operating in BC mode may not be able to receive a local Point to Point RTS transaction, further suggesting that the first processor in the system of Cypher may not be operative in response to a broadcast write conflict response from the second processor to issue a request for the data using a forward progress technique. See Cypher at Col. 24, lines 41-44. Therefore, Cypher in view of Arimilli fails to teach or suggest the system of claim 17. Accordingly, Applicant respectfully requests reconsideration and allowance of claim 17.

In regard to claim 18, the Office Action admits that Cypher fails to disclose claim 17 from which claim 18 depends. However, contrary to the contention of the office action, Arimilli does provides no suggestion to include a conflict response that prevents the first processor node from implementing the cache with the data provided by the third node. Similar to as stated in support of claim 16, the data would already be in a shared state at the

Serial No. 10/761,047

Docket No. 200313631-1

first node in the system of Arimilli, such that there would be no desired to request the data or send a response that includes the requested data. Arimilli Par. [0030]. Accordingly, Applicant requests reconsideration and allowance of claim 18.

In regard to Claim 20, in addition to the reasons given in support of claim 16, Cypher in view of Arimilli also fails to teach or suggest that the source broadcast request issued by the first processor node might exist concurrently with the source broadcast request issued by the second processor. The cited sections of Cypher (Col. 15, lines 25-55) relates generally to the types of access rights and ownership status, and are silent on source broadcast requests for "the data" (as recited in claim 16) exist concurrently. Accordingly, Applicant respectfully requests reconsideration and allowance of claim 20.

For reasons similar to those stated in support of claims 10 and 16, Cypher in view of Arimilli fails to teach or suggest or motivate claim 21. Accordingly, Applicant respectfully requests reconsideration and allowance of claim 21.

For reasons similar to those stated in support of claims 14 and 16, Cypher in view of Arimilli fails to teach or suggest claim 22. Accordingly, Applicant respectfully requests reconsideration and allowance of claim 22.

Applicant respectfully requests reconsideration and allowance of claim 23 for reasons similar to those stated in support of claim 15 and 16.

For reasons similar to those provided in support of claim 16, Cypher in view of Arimilli fails to teach or suggest or motivate claim 24 for similar reasons to the reasons stated in support of claim 16. For at least these reasons, Applicant respectfully requests reconsideration and allowance of claim 24 and dependent claims 25-27.

Additionally, Applicant respectfully requests reconsideration and allowance claim 25 for reasons similar to the reasons stated in support of claims 24 and 17.

For reasons similar to the reasons given in support of claim 18, Cypher in view of Arimilli fails to teach or suggest the system of Claim 26, such that claim 26 is patentable.

Cypher in view of Arimilli also fails to teach or suggest claim 27 for reasons similar to those discussed above with respect to claims 10 and 24. Accordingly, Applicant respectfully requests withdraw of the rejection of claim 27.

Claim 28 is patentable over Cypher in view of Arimilli for reasons similar to those provided in support of claim 15.

The Office Action rejects claim 29 based on the same reasoning applied for rejecting claim 1. However, similar to as discussed above with respect to claim 1, Cypher in view of

Serial No. 10/761,047

Docket No. 200313631-1

Arimilli is deficient in teaching or motivating the system claim 29, which is written in means plus function format. For example, the discussion of broadcast transactions in Cypher fails to teach or suggest the means for placing the data from a third node in a cache associated with the first node in response to the read conflict response from the second node. See Cypher Fig. 12A to 12F and Col. 18, line 33, to Col. 20, line 56. For these reasons and those discussed with respect to claim 1, Cypher in view of Arimilli fails to teach or motivate claim 29. Accordingly, Applicant respectfully requests reconsideration and allowance of claim 29 and dependent claims 30 to 33.

Claim 30 is patentable over Cypher in view of Arimilli for at least the reasons similar to the reasons provided in support of claim 4 and claim 29.

For reasons similar to those previously stated in support of claim 8, Cypher in view of Arimilli fails to teach or suggest the system of claim 31. Accordingly, Applicant respectfully requests withdraw of the rejection of claim 31.

Cypher in view of Arimilli fails to teach or motivate a second conflict response from a first node, as recited in claim 32, for reasons similar to that given in support of claim 18. Applicant, therefore, respectfully requests reconsideration and allowance of claim 32.

Cypher in view of Arimilli fails to teach or suggest claim 33 for reasons similar to those discussed above with respect to claim 27. Accordingly, Applicant respectfully requests reconsideration and allowance of claim 33.

The Office Action does not appear to contain a basis for rejecting claim 34. The Office Action goes from claim 33 directly to a rejection of claim 35. The rejection of claim 35 erroneously states that Cypher discloses the method claim 34, but failed to identify any basis that corresponds to what is recited in claim 34. Accordingly, the Examiner has failed to present a prima facie case of unpatentability with respect to claim 34. Since the Office Action failed to meet its initial burden, claim 34 should be allowed. Additionally, Applicant disagrees that Cypher in view of Arimilli teaches, suggests or motivates claim 34 at least for the reasons given in support of claim 1 and 29. Applicant respectfully requests reconsideration and allowance of claim 34 and dependent claims 35 to 37.

Regarding claim 35, the Office Action contends that the system of Cypher in view of Arimilli teaches claim 35 and cites the teaching in Cypher that employs PTP transactions to provide read to own data requests. See Cypher at Col. 22, lines 45-67, and Col. 21, lines 12-36. In contrast to the cited section of Cypher, claim 35 recites a method that includes providing a read conflict response. Thus, for reasons similar to those discussed with respect

**Serial No. 10/761,047****Docket No. 200313631-1**

to claims 1 and 9, Cypher in view of Arimilli fails to teach or suggest claim 35. Accordingly, Applicant respectfully requests reconsideration and allowance of claim 35.

Cypher in view of Arimilli also fails to teach or suggest claim 36 for reasons similar to the reasons given in support of claims 18 and 26. Accordingly, Applicant respectfully requests reconsideration and allowance of claim 36.

Applicant respectfully requests reconsideration and allowance of claim 36 for reasons similar to the reasoning discussed above with respect to claims 8, 17, and 25.

Applicant respectfully disagrees with the contention that Cypher in view of Arimilli teaches or suggests claim 38. For example, Cypher fails to teach that a computer system, comprising a hybrid cache coherency protocol, that is operative to reissue a request for the data from a source node using a forward progress protocol mode request when there is a source broadcast protocol second conflict with another node in the computer system, as recited in claim 38. The Office Action relies upon Cypher's description of buffering packets using a Synchronized Multicasts property and the Synchronized Networks property employing queues in its rejection of Claim 38. See Cypher at Col. 28, lines 1 to 67. The description in Cypher of a computer system that employs queues fails to teach a second conflict response and reissuing a request for the data from a source node using a forward progress protocol as recited in claim 38. Instead, the queues taught in Cypher suggest that a buffered packet request would not require reissue because the packet is stored in the queue until processing on the packet is completed. See Cypher Col. 27, lines 22-37. Moreover, nothing in Cypher or Arimilli teaches, suggests the interrelationship and use of the source broadcast protocol mode and the forward progress protocol mode that is recited in claim 38. The approach taught by Cypher instead suggests that a either the BC or PTP mode is utilized for a given transaction, as determined by the mode unit. See Cypher at Col. 6, lines 28+, and the section (Hybrid switch network) beginning at Col. 6, line 54, and the section (Transmission Mode Table) beginning at Col. 7, line 64. For these reasons, Cypher in view of Arimilli fails to teach claim 38. Accordingly, applicant requests reconsideration and allowance of claim 38.

Serial No. 10/761,047

Docket No. 200313631-1

**III. CONCLUSION**

In view of the foregoing remarks, Applicant respectfully submits that the present application is in condition for allowance. Applicant respectfully requests reconsideration of this application and that the application be passed to issue.

Should the Examiner have any questions concerning this paper, the Examiner is invited and encouraged to contact Applicant's undersigned attorney at (216) 621-2234, Ext. 06.

No additional fees should be due for this response. In the event any fees are due in connection with the filing of this document, the Commissioner is authorized to charge those fees to Deposit Account No. 08-2025.

Respectfully submitted,

By: 

Gary J. Pitzer  
Registration No. 39,334  
Attorney for Applicant(s)

**CUSTOMER NO.: 022879**

Hewlett-Packard Company  
Legal Department MS 79  
3404 E. Harmony Road  
Ft. Collins, CO 80528

**This Page is Inserted by IFW Indexing and Scanning  
Operations and is not part of the Official Record**

**BEST AVAILABLE IMAGES**

Defective images within this document are accurate representations of the original documents submitted by the applicant.

Defects in the images include but are not limited to the items checked:

- ☐ **BLACK BORDERS**
- ☐ **IMAGE CUT OFF AT TOP, BOTTOM OR SIDES**
- ☐ **FADED TEXT OR DRAWING**
- ☐ **BLURRED OR ILLEGIBLE TEXT OR DRAWING**
- ☐ **SKEWED/SLANTED IMAGES**
- ☐ **COLOR OR BLACK AND WHITE PHOTOGRAPHS**
- ☐ **GRAY SCALE DOCUMENTS**
- ☒ **LINES OR MARKS ON ORIGINAL DOCUMENT**
- ☐ **REFERENCE(S) OR EXHIBIT(S) SUBMITTED ARE POOR QUALITY**
- ☐ **OTHER: \_\_\_\_\_**

**IMAGES ARE BEST AVAILABLE COPY.**

**As rescanning these documents will not correct the image problems checked, please do not report these problems to the IFW Image Problem Mailbox.**